

Comments on Draft report Duke Energy East Bend

**EPA Comments:**

Page 15, fourth paragraph, change “the East Bend Ash Pone” to “the East Bend Ash Pond”.

**EPA Notes:**

The technical documentation provided to Dewberry lacks critical engineering analyses data required to assess the structural stability of the fly ash pond embankment. If the original slope stability design calculations cannot be located new geotechnical engineering analyses should be conducted to verify the existing slope stability safety factors meet or exceed acceptable criteria.

State: None

Company: See letter attached dated January 18, 2011



**Duke Energy Corporation**  
526 South Church Street  
Charlotte, NC 28202

Mailing Address:  
EC13K/PO Box 1006  
Charlotte, NC 28201-1006

**Via E-Mail and Overnight Courier**

January 18, 2011

Mr. Stephen Hoffman  
US Environmental Protection Agency  
Two Potomac Yard  
2733 S. Crystal Drive  
5<sup>th</sup> Floor, N-237  
Arlington, VA 22202-2733

Re: Draft Dam Safety Assessment Report  
East Bend Station  
6293 Beaver Road  
Union, Kentucky 41091

Dear Mr. Hoffman:

Duke Energy Kentucky, Inc. (Duke Energy) received and has reviewed the draft report for East Bend Station that resulted from the site assessment of the ash basin conducted on August 5, 2010 by Dewberry & Davis, LLC, (Dewberry) under contract to the United States Environmental Protection Agency (EPA). Duke Energy supports the EPA's objective of ensuring ash basin dam safety and remains committed to the safe operation and maintenance of coal ash basins.

The impoundment facility at East Bend Station is currently under the regulatory authority of the Kentucky Department of Environmental Protection Division of Water (KDEP), Dam Safety and Floodplain Compliance area. KDEP conducts periodic assessments/inspections of the impoundment and requires East Bend Station to maintain the impoundment to ensure public safety. In addition, Duke Energy regularly conducts internal inspections and periodically contracts third party inspections of the East Bend Station impoundment.

Duke Energy remains committed to meeting all state and federal requirements and managing its coal combustion byproducts impoundments in a safe and responsible manner. Based on ongoing monitoring, maintenance and inspections, Duke Energy is confident that the East Bend Station ash basin has the structural integrity necessary to protect the public and the environment.

Duke Energy submits the following comments regarding the draft report:

**Cover Page, Page i**

1. Replace the line that says "Fly Ash Dike" with "Coal Combustion Surface Impoundment" or some other name such as "Ash Impoundment". The ash basin at East Bend Station is neither made from fly ash nor is a direct source of fly ash sluiced to it. It primarily receives bottom ash and pyrites.

**Introduction, Summary Conclusions and Recommendations, Page ii**

2. Paragraph 2, first sentence: Replace words "Fly Ash Dam" with either "Coal Combustion Surface Impoundment" or some other name such as "Ash Impoundment". The reason for this request is that the ash basin at East Bend Station is neither made from fly ash nor is a direct source of fly ash sluiced to it.
3. Paragraph 2, first sentence: Replace the words "August 4" with "August 5".
4. Paragraph 2, third sentence: Replace the words "fly ash" with either "coal combustion residual" or "ash".
5. Paragraph 3, first sentence: Replace "Greene County Fly Ash Dam" with "East Bend Ash Impoundment".

**Purpose and Scope, Page iii**

6. Paragraph 2, first sentence: Replace the sentence "The purpose of this report is to evaluate the condition and potential of waste release from the select High Hazard Potential management units." With one of the following:  
"The purpose of this report is to evaluate the structural integrity of the East Bend Station Coal Combustion Waste Impoundment"  
OR  
"The purpose of this report is to evaluate the structural integrity of a Significant Hazard Potential coal ash management unit."  
This sentence, as written, is misleading and incorrect. The East Bend Station coal ash management unit has not at any time been rated a High Hazard Potential management unit. This statement is inconsistent with the rating assigned later in this report.
7. Paragraph 2, last sentence: Replace the words "John E Amos Fly Ash Dam" with "East Bend Ash Impoundment".

**Section 1.1.1, Page 1-1**

8. Paragraph 1, first sentence: Replace this sentence with a sentence such as: "Although visual observation of the embankments suggests that the impoundment is performing in an acceptable manner, in accordance with USEPA criteria, the structural soundness must be rated POOR as a design report is not available corroborating embankment stability." Duke Energy is requesting this

modification because it would be more in keeping with the overall tone of the entire report and is more representative of the actual situation.

**Section 1.1.6, Page 1-2**

9. Paragraph 1, first sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 1.1.7, Page 1-2**

10. Paragraph 1, third sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 1.3.1, Page 1-4**

11. In the List of Participants, please replace "Jenny Burlach" with "Jenny Bulach".

**Section 2.1, Page 2-1**

12. Paragraph 1, third sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i". Also, in this same section in paragraph 2, first and second sentence and paragraph 4, first sentence, first occurrence, replace the words "fly ash" with "coal ash". In paragraph 4, first sentence, second occurrence, replace the words "fly ash" with "bottom ash". The berm is made with bottom ash.

**Section 2.1, Page 2-2**

13. Paragraph 1, third sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i". Also, in this same section in paragraph 2, first sentence and twice in second sentence, replace the words "fly ash" with "coal ash".

**Section 2.1, Page 2-2**

14. In paragraph 2, it is stated that these ponds are used for temporary storage during outages of the ash pond. This is not the case. There is no connection between the coal ash impoundment and these ponds. Paragraph 2 should be deleted from the report as well as paragraphs 1, 3, 4 and 5. If these paragraphs are not deleted, replace the words "sludge ponds" with "FGD temporary holding ponds" because "sludge ponds" is an incorrect term for these ponds.

**Section 2.2, Page 2-3**

15. Paragraph 1, first sentence and third sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".
16. In Paragraph 1, Dewberry evaluates the East Bend Station ash pond embankment as "significant hazard potential" on the premise that a catastrophic failure will release ash slurry into the Ohio River resulting in economic and environmental losses. Duke Energy believes, considering the amount of ash contained within the ash impoundment, the size of the ash impoundment, and the location of the ash impoundment, the economic and environmental losses that might occur from a catastrophic dike failure would be minimal. Classification as a "significant hazard potential" is therefore inappropriate. This rating should be changed to "low hazard potential".

**Section 2.4.2, Page 2-4**

17. First full paragraph, second sentence: Replace "418.4" with "518.4".

**Section 2.5, Page 2-4**

18. Paragraph 2, first sentence and third sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 4.1, Page 4-1**

19. Paragraph 1, first sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 4.2, Page 4-1**

20. Paragraph 1, first sentence and paragraph 2, first and second sentences: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 5.3.4, Page 5-13**

21. Paragraph 1, first sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 6.1.2, Section 6.2 and Section 6.3, Page 6-1**

22. Section 6.1.2, Section 6.2 and Section 6.3 paragraph 1, first sentence (and third sentence in Section 6.1.2): Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 7.1.6, Page 7-1**

23. Paragraph 1, first sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 7.2, Page 7-2**

24. Paragraph 1, first sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 8.1, Page 8-1**

25. Paragraph 1, first, second and third sentences: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

**Section 8.3.2, Page 8-2**

26. Paragraph 1, second sentence: Replace "MMCM" with "BBCM".

**Section 9.2 and Section 9.3, Page 9-1**

27. Section 9.2 and Section 9.3 paragraph 1, first sentence: Replace the words "fly ash" with "coal ash". See above explanation provided in comment to "Cover Page, Page i".

If you have any questions regarding these comments or need additional information, please contact me at 980-373-3719.

Sincerely,

A handwritten signature in black ink that reads "D. Edwin M. Sullivan". The script is cursive and fluid, with the first letters of each word being capitalized and prominent.

D. Edwin M. Sullivan, PE  
Corporate EHS Services